

Author Index

Adewuyi, Y.G., Klocke, D.J. and Buchanan, J.S.

Effects of high-level additions of ZSM-5 to a fluid catalytic cracking (FCC) RE-USY catalyst 121

Amadeo, N., see Ginés, M.J.L. 283

Antia, J.E. and Govind, R.

Applications of binderless zeolite-coated monolithic reactors 107

Apesteguía, C.R., see Ginés, M.J.L. 283

Baerns, M., see Keipert, O.P. 347

Bánsági, T., see Solymosi, F. 55

Bourdauducq, P., see Monflier, E. 167

Buchanan, J.S., see Adewuyi, Y.G. 121

Buffon, R., see Schuchardt, U. 135

Cativiela, C., García, J.I., Mayoral, J.A., Pires, E., Royo, A.J. and Figueras, F.

Diels-Alder reactions of α -amino acid precursors by heterogeneous catalysis: Thermal vs. microwave activation 159

Cavell, K.J., see Setiawan, I. 225

Chakrabarty, D.K., see Das, D. 335

Chetina, O.V., Vasina, T.V. and V Lunin, V.

Aromatization of ethane over Pt,Ga/HZSM-5
catalyst and the effect of intermetallic hydrogen
acceptor on the reaction 7

Chien, C.-C., Chuang, W.-P. and Huang, T.-J. Effect of heat-treatment conditions on Cu–Cr/ γalumina catalyst for carbon monoxide and propene oxidation 73

Chuang, W.-P., see Chien, C.-C. 73

Couturier, J.-L., see Monflier, E. 167

Das, D., Ravichandran, G. and Chakrabarty, D.K. Synthesis of light alkenes from syngas on silicalite-1 supported cobalt and cobalt manganese catalysts 335

Dieguez, L.C., see Monteiro, R.d.S. 89

Doi, T., see Miyake, T. 43

Duprez, D., see Martin, D. 297

Fierro, J.L.G., see Mariscal, R. 243

Figueras, F., see Cativiela, C. 159

García, J.I., see Cativiela, C. 159

Ginés, M.J.L., Amadeo, N., Laborde, M. and Apesteguía, C.R.

Activity and structure-sensitivity of the water-gas

shift reaction over Cu-Zn-Al mixed oxide catalysts 283

Govind, R., see Antia, J.E. 107

Hamada, M., see Miyake, T. 33

Hanaoka, T., see Kim, J.-H. 15

Hashimoto, K., see Matsumoto, Y. 1

Huang, S.-Y., see Lin, P.-Z. 207

Huang, T.-J., see Chien, C.-C. 73

Ivanov, V.A., Piéplu, A., Lavalley, J.C. and Nortier, P.

Effect of sodium oxide on the morphology and basicity of alumina 323

Kato, A., see Kim, J.-H. 15

Keipert, O.P., Wolf, D., Schulz, P. and Baerns, M. Kinetics of ethane aromatization over a galliumdoped H-ZSM-5 catalyst 347

Kervennal, J., see Monflier, E. 167

Kikuchi, E., see Matsuda, T. 215

Kim, J.-H., Sugi, Y., Matsuzaki, T., Hanaoka, T., Kubota, Y., Tu, X., Matsumoto, M., Nakata, S., Kato, A., Seo, G. and Pak, C.

Cerium impregnated H-mordenite as a catalyst for shape-selective isopropylation of naphthalene. Selective deactivation of acid sites on the external surface 15

Klocke, D.J., see Adewuyi, Y.G. 121

Krähembühl, C.E.Z., see Schuchardt, U. 135

Kubota, Y., see Kim, J.-H. 15

Laborde, M., see Ginés, M.J.L. 283

Lamure-Meille, V., Schulz, E., Lemaire, M. and Vrinat, M.

Effect of experimental parameters on the relative reactivity of dibenzothiophene and 4-methyldibenzothiophene 143

Lavalley, J.C., see Ivanov, V.A. 323

Lemaire, M., see Lamure-Meille, V. 143

Liang, D.-B., see Lin, P.-Z. 207

Lin, L.-W., see Lin, P.-Z. 207

Lin, P.-Z., See Lin, P.-Z. 207

Lin, P.-Z., Liang, D.-B., Luo, H.-Y., Xu, C.-H.,

Zhou, H.-W., Huang, S.-Y. and Lin, L.-W.

Synthesis of C₂₊-oxygenated compounds directly from syngas 207

López Granados, M. and Wolf, E.E.

Partial oxidation of methane to formaldehyde by lithium promoted VPO catalysts 263

Luo, H.-Y., see Lin, P.-Z. 207

Makkee, M., see Stobbe-Kreemers, A.W. 367

Mariscal, R., Peña, M.A. and Fierro, J.L.G.

Promoter effects of dichloromethane on the oxidative coupling of methane over MnMgO catalysts 243

Martin, D. and Duprez, D.

The effects of support and of particle size on the redox properties of rhodium 297

Matsuda, T., Urata, T., Saito, U. and Kikuchi, E.

Effect of SiO₂/Al₂O₃ ratio on the catalytic properties of mordenite for alkylation of biphenyl with propene 215

Matsumoto, M., see Kim, J.-H. 15

Matsumoto, Y., Mita, K., Hashimoto, K. and Tokoroyama, T.

Preparation of silica-alumina catalyst by the solgel method and its activity for the Diels-Alder reaction of isoprene and acrylaldehyde 1

Matsuzaki, T., see Kim, J.-H. 15

Mayoral, J.A., see Cativiela, C. 159

Mita, K., see Matsumoto, Y. 1

Miyake, T., Hamada, M., Sasaki, Y. and Oguri, M.
Direct synthesis of phenol by hydroxylation of
benzene with oxygen and hydrogen 33

Miyake, T. and Doi, T.

Importance of a quasistable V₄O₉ to synthesize a highly crystalline VOHPO₄·0.5H₂O 43

Monflier, E., Bourdauducq, P., Couturier, J.-L., Kervennal, J. and Mortreux, A.

Highly efficient telomerization of butadiene into octadienol in a micellar system: a judicious choice of the phosphine/surfactant combination 167

Monteiro, R.d.S., Noronha, F.B., Dieguez, L.C. and Schmal, M.

Characterization of Pd-CeO₂ interaction on alumina support and hydrogenation of 1,3-butadiene 89

Mortreux, A., see Monflier, E. 167

Nakata, S., see Kim, J.-H. 15

Noronha, F.B., see Monteiro, R.d.S. 89

Nortier, P., see Ivanov, V.A. 323

Oguri, M., see Miyake, T. 33

Oszkó, A., see Solymosi, F. 55

Pak, C., see Kim, J.-H. 15

Papp, E., see Solymosi, F. 55

Peña, M.A., see Mariscal, R. 243

Pereira, R., see Schuchardt, U. 135

Piéplu, A., see Ivanov, V.A. 323

Pires, E., see Cativiela, C. 159

Pomonis, P.J., see Trikalitis, P.N. 309

Raskó, J., see Solymosi, F. 55

Ravichandran, G., see Das, D. 335

Royo, A.J., see Cativiela, C. 159 Rufo, M., see Schuchardt, U. 135

Saito, U., see Matsuda, T. 215

Sasaki, Y., see Miyake, T. 33

Schmal, M., see Monteiro, R.d.S. 89

Scholten, J.J.F., see Stobbe-Kreemers, A.W. 367

Schuchardt, U., Pereira, R., Krähembühl, C.E.Z., Rufo, M. and Buffon, R.

Synergistic effect of iron and copper oxides supported on silica in the room temperature oxidation of cyclohexane 135

Schulz, E., see Lamure-Meille, V. 143

Schulz, P., see Keipert, O.P. 347

Seo, G., see Kim, J.-H. 15

Setiawan, I. and Cavell, K.J.

Removal of unsaturated contaminants from an industrial C_4 -stream using Cu/SiO_2 catalysts: Subsequent testing of the purified stream with an alkyne sensitive catalyst system 225

Soede, M., see Stobbe-Kreemers, A.W. 367

Solymosi, F., Raskó, J., Papp, E., Oszkó, A. and Bánsági, T.

Catalytic decomposition and oxidation of CH₃Cl on Cr₂O₃-doped SnO₂ 55

Stobbe-Kreemers, A.W., Soede, M., Makkee, M. and Scholten, J.J.F.

Performance of γ-alumina-supported Wacker catalysts in the oxidation of 1-butene 367

Sugi, Y., see Kim, J.-H. 15

Tokoroyama, T., see Matsumoto, Y. 1

Trikalitis, P.N. and Pomonis, P.J.

Catalytic activity and selectivity of perovskites $La_{1-x}Sr_xV_{1-x}^{J+}V_{x}^{d+}O_3$ for the transformation of isopropanol 309

Tu, X., see Kim, J.-H. 15

Urata, T., see Matsuda, T. 215

Vasina, T.V., see Chetina, O.V. 7

V Lunin, V., see Chetina, O.V. 7

Vrinat, M., see Lamure-Meille, V. 143

Wang, W., Yang, Y. and Zhang, J.

Preparation and characterization of alumina supported trimanganese tetroxide catalysts 189

Wolf, D., see Keipert, O.P. 347

Wolf, E.E., see López Granados, M. 263

Xu, C.-H., see Lin, P.-Z. 207

Yang, Y., see Wang, W. 189

Zhang, J., see Wang, W. 189

Zhou, H.-W., see Lin, P.-Z. 207



Applied Catalysis A: General 131 (1995) 385-389



Subject Index

Acetic acid

Synthesis of C₂₊-oxygenated compounds directly from syngas 207

Acidic site

Preparation of silica-alumina catalyst by the solgel method and its activity for the Diels-Alder reaction of isoprene and acrylaldehyde 1

Acid strength

Effect of SiO₂/Al₂O₃ ratio on the catalytic properties of mordenite for alkylation of biphenyl with propene 215

Activation

Diels-Alder reactions of α -amino acid precursors by heterogeneous catalysis: Thermal vs. microwave activation 159

Activity

Catalytic activity and selectivity of perovskites $\text{La}_{1-x}\text{Sr}_xV_{1-x}^{3+}V_{1-x}^{4+}O_3$ for the transformation of isopropanol 309

Alkaline oxides

Promoter effects of dichloromethane on the oxidative coupling of methane over MnMgO catalysts 243

Alkene feeds

Removal of unsaturated contaminants from an industrial C₄-stream using Cu/SiO₂ catalysts: Subsequent testing of the purified stream with an alkyne sensitive catalyst system 225

Alkylation

Effects of high-level additions of ZSM-5 to a fluid catalytic cracking (FCC) RE-USY catalyst 121 Effect of SiO₂/Al₂O₃ ratio on the catalytic properties of mordenite for alkylation of biphenyl with propene 215

Alkyne contaminants

Removal of unsaturated contaminants from an industrial C₄-stream using Cu/SiO₂ catalysts: Subsequent testing of the purified stream with an alkyne sensitive catalyst system 225

Alumina

Effect of sodium oxide on the morphology and basicity of alumina 323

Performance of γ -alumina-supported Wacker catalysts in the oxidation of 1-butene 367

Amino acids

Diels-Alder reactions of α -amino acid precursors by heterogeneous catalysis: Thermal vs. microwave activation 159

Aromatization

Aromatization of ethane over Pt,Ga/HZSM-5 catalyst and the effect of intermetallic hydrogen acceptor on the reaction 7

Kinetics of ethane aromatization over a galliumdoped H-ZSM-5 catalyst 347

Basicity

Effect of sodium oxide on the morphology and basicity of alumina 323

Binderless zeolite coating

Applications of binderless zeolite-coated monolithic reactors 107

Biphenyl

Effect of SiO₂/Al₂O₃ ratio on the catalytic properties of mordenite for alkylation of biphenyl with propene 215

Butadiene

Highly efficient telomerization of butadiene into octadienol in a micellar system: a judicious choice of the phosphine/surfactant combination 167

1,3-Butadiene hydrogenation

Characterization of Pd-CeO₂ interaction on alumina support and hydrogenation of 1,3-butadiene 89

1-Butene

Performance of γ-alumina-supported Wacker catalysts in the oxidation of 1-butene 367

Carbon monoxide

Effect of heat-treatment conditions on $Cu-Cr/\gamma$ -alumina catalyst for carbon monoxide and propene oxidation 73

Catalysts characterization (TPR

Promoter effects of dichloromethane on the oxidative coupling of methane over MnMgO . catalysts 243

Ceria

Cerium impregnated H-mordenite as a catalyst for shape-selective isopropylation of naphthalene. Selective deactivation of acid sites on the external surface 15

Characterization of Pd-CeO₂ interaction on alumina support and hydrogenation of 1,3-butadiene 89

CH₃Cl

Catalytic decomposition and oxidation of CH₃Cl on Cr₂O₃-doped SnO₂ 55

Cobalt and cobalt-manganese catalysts

Synthesis of light alkenes from syngas on silicalite-1 supported cobalt and cobalt-manganese catalysts 335

CO hydrogenation

Synthesis of light alkenes from syngas on silicalite-1 supported cobalt and cobalt-manganese catalysts 335

Combustion

Characterization of Pd-CeO₂ interaction on alumina support and hydrogenation of 1,3-butadiene 89

Competitive reactions

Effect of experimental parameters on the relative reactivity of dibenzothiophene and 4-methyldibenzothiophene 143

Configurational diffusion

Applications of binderless zeolite-coated monolithic reactors 107

Copper-chromium

Effect of heat-treatment conditions on Cu–Cr/ γ -alumina catalyst for carbon monoxide and propene oxidation 73

Copper oxide/zinc oxide/alumina

Activity and structure-sensitivity of the water-gas shift reaction over Cu-Zn-Al mixed oxide catalysts 283

Cr2O3-doped SnO2

Catalytic decomposition and oxidation of CH₃Cl on Cr₂O₃-doped SnO₂ 55

Cracking catalyst

Effects of high-level additions of ZSM-5 to a fluid catalytic cracking (FCC) RE-USY catalyst 121 Cu₂Cr₂O₄

Effect of heat-treatment conditions on Cu–Cr/ γ alumina catalyst for carbon monoxide and propene oxidation 73

Cyclic amino acids

Diels-Alder reactions of α -amino acid precursors by heterogeneous catalysis: Thermal vs. microwave activation 159

Cyclohexane oxidation

Synergistic effect of iron and copper oxides supported on silica in the room temperature oxidation of cyclohexane 135

Deactivation

Cerium impregnated H-mordenite as a catalyst for shape-selective isopropylation of naphthalene. Selective deactivation of acid sites on the external surface 15 Performance of γ -alumina-supported Wacker catalysts in the oxidation of 1-butene 367

Decomposition

Catalytic decomposition and oxidation of CH₃Cl on Cr₂O₃-doped SnO₂ 55

Dibenzothiophene

Effect of experimental parameters on the relative reactivity of dibenzothiophene and 4-methyldibenzothiophene 143

Diels-Alder reaction

Preparation of silica-alumina catalyst by the solgel method and its activity for the Diels-Alder reaction of isoprene and acrylaldehyde 1

Diels-Alder reactions of α -amino acid precursors by heterogeneous catalysis: Thermal vs. microwave activation 159

Dimerization

Removal of unsaturated contaminants from an industrial C_4 -stream using Cu/SiO_2 catalysts: Subsequent testing of the purified stream with an alkyne sensitive catalyst system 225

Dispersion

Preparation and characterization of alumina supported trimanganese tetroxide catalysts 189

Double-bed reactor configuration

Partial oxidation of methane to formaldehyde by lithium promoted VPO catalysts 263

Encapsulation

Preparation and characterization of alumina supported trimanganese tetroxide catalysts 189

Ethane

Aromatization of ethane over Pt,Ga/HZSM-5 catalyst and the effect of intermetallic hydrogen acceptor on the reaction 7

Kinetics of ethane aromatization over a galliumdoped H-ZSM-5 catalyst 347

Ethanol

Synthesis of C_{2+} -oxygenated compounds directly from syngas 207

Etherification

Effects of high-level additions of ZSM-5 to a fluid catalytic cracking (FCC) RE-USY catalyst 121 External acid site

Cerium impregnated H-mordenite as a catalyst for shape-selective isopropylation of naphthalene. Selective deactivation of acid sites on the external surface 15

FCC

Effects of high-level additions of ZSM-5 to a fluid catalytic cracking (FCC) RE-USY catalyst 121

Fischer-tropsch synthesis

Synthesis of light alkenes from syngas on silicalite-1 supported cobalt and cobalt-manganese catalysts 335

Galliun

Aromatization of ethane over Pt.Ga/HZSM-5

catalyst and the effect of intermetallic hydrogen acceptor on the reaction 7

Gallium-exchanged H-ZSM-5

Kinetics of ethane aromatization over a gallium-doped H-ZSM-5 catalyst 347

Gasoline

Effects of high-level additions of ZSM-5 to a fluid catalytic cracking (FCC) RE-USY catalyst 121 Gif system

Synergistic effect of iron and copper oxides supported on silica in the room temperature oxidation of cyclohexane 135

H-mordenite

Cerium impregnated H-mordenite as a catalyst for shape-selective isopropylation of naphthalene. Selective deactivation of acid sites on the external surface 15

Homogeneous catalyst

Removal of unsaturated contaminants from an industrial C_4 -stream using Cu/SiO_2 catalysts: Subsequent testing of the purified stream with an alkyne sensitive catalyst system 225

Hydride

Aromatization of ethane over Pt,Ga/HZSM-5 catalyst and the effect of intermetallic hydrogen acceptor on the reaction 7

Hydrodesulfurization

Effect of experimental parameters on the relative reactivity of dibenzothiophene and 4-methyldibenzothiophene 143

Hydrogen acceptor

Aromatization of ethane over Pt,Ga/HZSM-5 catalyst and the effect of intermetallic hydrogen acceptor on the reaction 7

Hydrogenation

Synthesis of C₂₊-oxygenated compounds directly from syngas 207

Removal of unsaturated contaminants from an industrial C_4 -stream using Cu/SiO_2 catalysts: Subsequent testing of the purified stream with an alkyne sensitive catalyst system 225

Hydrogen peroxide

Direct synthesis of phenol by hydroxylation of benzene with oxygen and hydrogen 33

Hydroxylation

Direct synthesis of phenol by hydroxylation of benzene with oxygen and hydrogen 33

Impregnation

Preparation and characterization of alumina supported trimanganese tetroxide catalysts 189

Intermetallic compound

Aromatization of ethane over Pt,Ga/HZSM-5 catalyst and the effect of intermetallic hydrogen acceptor on the reaction 7

Iron(III) supported on silica

Synergistic effect of iron and copper oxides

supported on silica in the room temperature oxidation of cyclohexane 135

Isopropanol

Catalytic activity and selectivity of perovskites $La_{1-x}Sr_xV_2^{3+}V_2^{4+}O_3$ for the transformation of isopropanol 309

Isopropylation

Cerium impregnated H-mordenite as a catalyst for shape-selective isopropylation of naphthalene. Selective deactivation of acid sites on the external surface 15

Kinetics

Kinetics of ethane aromatization over a galliumdoped H-ZSM-5 catalyst 347

 $La_{1-r}Sr_{r}V_{1-r}^{3+}V_{r}^{4+}O_{3}$

Catalytic activity and selectivity of perovskites $La_{1-x}Sr_xV_{1-x}^{J^+}V_{1-x}^{J^+}V_3^{J^+}O_3$ for the transformation of isopropanol 309

Lattice contraction

Preparation and characterization of alumina supported trimanganese tetroxide catalysts 189

Light alkenes

Synthesis of light alkenes from syngas on silicalite-1 supported cobalt and cobalt-manganese catalysts 335

lithium-promoted VPO catalysts

Partial oxidation of methane to formaldehyde by lithium promoted VPO catalysts 263

Manganese/alumina

Preparation and characterization of alumina supported trimanganese tetroxide catalysts 189 Manganese-magnesium oxides

Promoter effects of dichloromethane on the oxidative coupling of methane over MnMgO catalysts 243

Methane oxidative coupling

Promoter effects of dichloromethane on the oxidative coupling of methane over MnMgO catalysts 243

4-Methyldibenzothiophene

Effect of experimental parameters on the relative reactivity of dibenzothiophene and 4-methyldibenzothiophene 143

Micelle

Highly efficient telomerization of butadiene into octadienol in a micellar system: a judicious choice of the phosphine/surfactant combination 167

Microwave activation

Diels-Alder reactions of α -amino acid precursors by heterogeneous catalysis: Thermal vs. microwave activation 159

Monolithic reactor

Applications of binderless zeolite-coated monolithic reactors 107

Mordenite

Effect of SiO₂/Al₂O₃ ratio on the catalytic

properties of mordenite for alkylation of biphenyl with propene 215

Naphthalene

Cerium impregnated H-mordenite as a catalyst for shape-selective isopropylation of naphthalene. Selective deactivation of acid sites on the external surface 15

Octadienol

Highly efficient telomerization of butadiene into octadienol in a micellar system: a judicious choice of the phosphine/surfactant combination 167

Organic solvent method

Importance of a quasistable V₄O₉ to synthesize a highly crystalline VOHPO₄·0.5H₂O 43

Oxidation

Catalytic decomposition and oxidation of CH_3Cl on Cr_2O_3 -doped SnO_2 55

The effects of support and of particle size on the redox properties of rhodium 297

Palladium

Characterization of Pd-CeO₂ interaction on alumina support and hydrogenation of 1,3-butadiene 89

Highly efficient telomerization of butadiene into octadienol in a micellar system: a judicious choice of the phosphine/surfactant combination 167

Palladium-ceria interaction

Characterization of Pd-CeO₂ interaction on alumina support and hydrogenation of 1,3-butadiene 89

Partial methane oxidation

Partial oxidation of methane to formaldehyde by lithium promoted VPO catalysts 263

Particle size

The effects of support and of particle size on the redox properties of rhodium 297

Perovskites

Catalytic activity and selectivity of perovskites $La_{1-x}Sr_xV_1^{3+}x_2^{4+}O_3$ for the transformation of isopropanol $\ \ 309$

Phenol

Direct synthesis of phenol by hydroxylation of benzene with oxygen and hydrogen 33

Phosphine

Highly efficient telomerization of butadiene into octadienol in a micellar system: a judicious choice of the phosphine/surfactant combination 167 attinum

Aromatization of ethane over Pt,Ga/HZSM-5 catalyst and the effect of intermetallic hydrogen acceptor on the reaction 7

Post-combustion catalysts

Characterization of Pd-CeO₂ interaction on alumina support and hydrogenation of 1,3-butadiene 89

Precious metal

Direct synthesis of phenol by hydroxylation of benzene with oxygen and hydrogen 33

Promotion by chlorine

Promoter effects of dichloromethane on the oxidative coupling of methane over MnMgO catalysts 243

Propene

Effect of heat-treatment conditions on Cu–Cr/ γ -alumina catalyst for carbon monoxide and propene oxidation 73

Effect of SiO₂/Al₂O₃ ratio on the catalytic properties of mordenite for alkylation of biphenyl with propene 215

Rare-earths

Effects of high-level additions of ZSM-5 to a fluid catalytic cracking (FCC) RE-USY catalyst 121 Reduction

The effects of support and of particle size on the redox properties of rhodium 297

Rhodium

The effects of support and of particle size on the redox properties of rhodium 297

Rhodium catalyst

Synthesis of C_{2+} -oxygenated compounds directly from syngas 207

Selectivity

Catalytic activity and selectivity of perovskites $La_{1-x}Sr_xV_1^{J^+_{-x}}V_x^{J^+_{-y}}O_3$ for the transformation of isopropanol $\ 309$

Shape selectivity

Effect of SiO₂/Al₂O₃ ratio on the catalytic properties of mordenite for alkylation of biphenyl with propene 215

Silica-alumina (porous)

Preparation of silica-alumina catalyst by the solgel method and its activity for the Diels-Alder reaction of isoprene and acrylaldehyde

Silicalite-1

Synthesis of light alkenes from syngas on silicalite-1 supported cobalt and cobalt-manganese catalysts 335

SMSI

Effect of heat-treatment conditions on Cu–Cr/ γ -alumina catalyst for carbon monoxide and propene oxidation 73

SnO₂

Catalytic decomposition and oxidation of CH_3Cl on Cr_2O_3 -doped SnO_2 55

Sodium oxide

Effect of sodium oxide on the morphology and basicity of alumina 323

Sol-gel method

Preparation of silica-alumina catalyst by the solgel method and its activity for the Diels-Alder reaction of isoprene and acrylaldehyde 1

Spillover

Kinetics of ethane aromatization over a galliumdoped H-ZSM-5 catalyst 347

Structure-sensitivity

Activity and structure-sensitivity of the water-gas shift reaction over Cu-Zn-Al mixed oxide catalysts 283

Surfactant

Highly efficient telomerization of butadiene into octadienol in a micellar system: a judicious choice of the phosphine/surfactant combination 167

Synergistic effect

Effect of heat-treatment conditions on Cu–Cr/ γ -alumina catalyst for carbon monoxide and propene oxidation 73

Synergistic effect of iron and copper oxides supported on silica in the room temperature oxidation of cyclohexane 135

Syngas

Synthesis of C₂₊-oxygenated compounds directly from syngas 207

Telomerization

Highly efficient telomerization of butadiene into octadienol in a micellar system: a judicious choice of the phosphine/surfactant combination 167

Temperature-programmed desorption

Effect of sodium oxide on the morphology and basicity of alumina 323

Temperature-programmed oxidation

The effects of support and of particle size on the redox properties of rhodium 297

Temperature-programmed reduction

The effects of support and of particle size on the redox properties of rhodium 297

Temperature-programmed techniques

Preparation and characterization of alumina supported trimanganese tetroxide catalysts 189 Vanadium oxide

Direct synthesis of phenol by hydroxylation of benzene with oxygen and hydrogen 33

Vanadium pentaoxide monolayer

Performance of γ-alumina-supported Wacker catalysts in the oxidation of 1-butene 367

Vanadium-phosphorus oxide

Importance of a quasistable V₄O₉ to synthesize a highly crystalline VOHPO₄·0.5H₂O 43

Vanadyl hydrogen phosphate

Importance of a quasistable V_4O_9 to synthesize a highly crystalline $VOHPO_4 \cdot 0.5H_2O-43$

VPO catalysts

Partial oxidation of methane to formaldehyde by lithium promoted VPO catalysts 263

Wacker oxidation

Performance of γ -alumina-supported Wacker catalysts in the oxidation of 1-butene 367

Water-gas shift reaction

Activity and structure-sensitivity of the water-gas shift reaction over Cu-Zn-Al mixed oxide catalysts 283

XPS)

Promoter effects of dichloromethane on the oxidative coupling of methane over MnMgO catalysts 243

X-ray diffraction

Preparation and characterization of alumina supported trimanganese tetroxide catalysts 189

X-ray photoelectron spectroscopy

Preparation and characterization of alumina supported trimanganese tetroxide catalysts 189 Zeolites

Applications of binderless zeolite-coated monolithic reactors 107

Effects of high-level additions of ZSM-5 to a fluid catalytic cracking (FCC) RE-USY catalyst 121 Kinetics of ethane aromatization over a gallium-doped H-ZSM-5 catalyst 347

Ziegler-type catalysts

Removal of unsaturated contaminants from an industrial C₄-stream using Cu/SiO₂ catalysts: Subsequent testing of the purified stream with an alkyne sensitive catalyst system 225

ZSM-5

Aromatization of ethane over Pt,Ga/HZSM-5 catalyst and the effect of intermetallic hydrogen acceptor on the reaction 7

Applications of binderless zeolite-coated monolithic reactors 107

Effects of high-level additions of ZSM-5 to a fluid catalytic cracking (FCC) RE-USY catalyst 121



